



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Examiner: Sing, Simon P.
Attorney Docket No.: Davis 11-16-8
Our Ref.: 73-972

IN RE PATENT APPLICATION OF:

DAVIS

TITLE: **TRANSMITTING MESSAGE PLAYBACK CONCURRENT WITH
SPEAKERPHONE OPERATION**

September 12, 2006

APPEAL BRIEF

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The Applicants submit herewith the following Appeal Brief in triplicate as required by 37 C.F.R. § 1.192.

(1) REAL PARTY IN INTEREST

The real party in interest is Agere Systems Inc.

(2) RELATED APPEALS AND INTERFERENCES

The Applicants and their legal representatives and assignee are not aware of any other appeals or interferences that will directly affect or be directly affected by or have a bearing on the Board's decision in the appealing appeal.

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(3) STATUS OF THE CLAIMS

Claims 1-19 are pending in this application. Claims 1-19 stand rejected.

(4) STATUS OF ANY AMENDMENT FILED SUBSEQUENT TO FINAL REJECTION

No Amendment was filed after the Final Office Action dated April 13, 2006.

(5) SUMMARY OF THE CLAIMED SUBJECT MATTER

Voice messaging systems such as telephone answering devices are well known. A typical telephone answering device allows a caller to record a voice message for a user who fails to answer an incoming telephone call. However, oftentimes it is desired to share a particular voice message with someone else. To do so, the conventional user must call and verbally paraphrase or repeat the voice message which they played back for themselves. It is possible to playback a voice message and hold the handset of a telephone toward the speaker of the telephone answering device, allowing an uncontrolled level of the played back voice message to be coupled into the telephone call between the user and the other person at the far end of a telephone call. Unfortunately, this typically requires the user to take the handset away from their own ear, preventing the user from participating in a conversation with the far end party while picking up some level of the played back message.

Applicant's invention allows a allowing a user of a telephone answering device, in particular a telephone answering device that has speakerphone functionality, to share a recorded voice message with another party. The recorded voice message is inserted within the speakerphone at a specific point within the circuit to allow proper volume levels to be heard by the parties involved in a telephone call.

Applicants disclose a means for establishing a telephone call at, e.g., Fig. 1, item 10, a means for initiating a transmit function of a speakerphone at, e.g., Fig. 1, item 150, a means for combining a microphone signal with a

playback message signal before performing hybrid echo cancellation and after performing automatic gain control at, e.g., Fig. 1, item 180, and a means for transmitting a combined microphone signal and playback signal to a far end party at, e.g., Fig. 1, Tx path.

(6) GROUND OF REJECTION TO BE REVIEWED ON APPEAL

(A) Whether claims 1-19 are obvious under 35 U.S.C. §103(a) over U.S. Patent No. 5,646,990 to Li (“Li”) in view of U.S. Patent No. 5,692,042 to Sacca (“Sacca”).

(7) ARGUMENTS WITH RESPECT TO THE ISSUES PRESENTED FOR REVIEW

(A) Claims 1-19 are not obvious under 35 U.S.C. § 103(a) over Li in view of Sacca.

All rejected claims 1-19 require a system and method to combining a microphone signal with a playback message signal before performing hybrid echo cancellation and after performing automatic gain control.

The Office Action acknowledged that Li fails to “teach injecting a message playback signal into the speakerphone”. (see Final Office Action dated April 13, 2006, page 2) However, The reason Li fails to disclose injecting a message playback signal into a speakerphone is that Li’s invention is directed toward minimizing the effects of echoes and gains introduced by speakerphone components (see Li, col. 1, lines 7-10). Li’s invention has nothing to do with allowing a far end user to hear anything other than speakerphone signals. The Examiner is reminded that an obviousness rejection requires a specific showing as to why one of ordinary skill in the art would have selected the components for combination in the manner claimed. “The examiner’s conclusory statements ... do not adequately address the issue of motivation to combine. This factual question of motivation is material to patentability, and [cannot] be resolved on subjective belief and unknown authority. It is improper, in determining whether a person of ordinary skill would have been led to this combination of references,

simply to '[use] that which the inventor taught against its teacher.'" In *re Lee*, 61 USPQ2d at 1434 (quoting *W.L. Gore v. Garlock, Inc.*, 202 USPQ 303, 312-13 (Fed. Cir. 1983)). Nothing the Examiner provides suggests modifying Li to incorporate any other signals with a microphone signal, much less a message playback signal, as recited by claims 1-19.

Moreover, since the proposed modification of Li would change the principle of operation of the prior art invention being modified, i.e., Li, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. MPEP § 2143.01, page 2100-132 (Rev. 2, May 2004) (citing *In re Ratti*, 123 USPQ 349 (CCPA 1959).

Moreover, it is well settled that each and every claim limitation must be considered. As specified in MPEP §2143.03, entitled "All Claim Limitations Must Be Taught or Suggested": "To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In *re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). 'All words in a claim must be considered in judging the patentability of that claim against the prior art.' In *re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970)." MPEP §2143.03 at 2100-139 (Rev. 3, Aug. 2005). The Examiner acknowledged that Li fails to disclose injecting a message playback signal into the speakerphone. However, the Examiner has failed to provide a prior art reference that discloses or suggest combining a microphone signal with a playback message signal before performing hybrid echo cancellation and after performing automatic gain control, as recited by claims 1-19.

Moreover, the Examiner alleges that Li disclose an echo canceller and automatic gain controller. However, Li only disclose such components for "minimizing the effects of echoes and gains introduced by [the] speakerphone components." (see Li, col. 1, lines 7-11). Li fails to disclose such components for, e.g., adjusting sound levels of a message playback signal to allowing a message playback signal to be heard by a far-end party at a comparable level as a speakerphone signal. Hence, since the proposed modification or combination would change the principle of operation of the prior art invention being modified,

then the teachings of the references are not sufficient to render the claims *prima facie* obvious. MPEP § 2143.01, page 2100-132 (Rev. 2, May 2004) (citing *In re Ratti*, 123 USPQ 349 (CCPA 1959). Nothing within Li or Sacca suggests using completely changing the purpose of Li's components from minimizing effects of echoes and gains introduced by speakerphone components to, e.g., normalizing of sound levels of a message playback signal and a microphone signal, i.e., a system and method to combining a microphone signal with a playback message signal before performing hybrid echo cancellation and after performing automatic gain control, as recited by claims 1-21 and 23-29.

Moreover, it is well settled that each and every claim limitation must be considered. As specified in MPEP §2143.03, entitled "All Claim Limitations Must Be Taught or Suggested": "To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). 'All words in a claim must be considered in judging the patentability of that claim against the prior art.' *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970)." MPEP §2143.03 at 2100-139 (Rev. 3, Aug. 2005). Sacca is relied on to disclose a voice messaging system with speakerphone capability that injects a playback message into a transmitting path at a point after a gain control module and before a side-tone canceller (see Final Office Action dated April 13, 2006, page 2). Thus, the Examiner acknowledged that Sacca fails to disclose use of an automatic gain control module at ANY point within a speakerphone circuit, much less in the manner claimed, i.e., a system and method to combining a microphone signal with a playback message signal before performing hybrid echo cancellation and after performing automatic gain control, as recited by claims 1-19.

Moreover, the Examiner alleged that "it is inherent that a playback module, such as a tape player or a telephone answering machine, has an amplifier in its signal output path" (see Final Office Action dated April 13, 2006, page 3). However, inherency is not applicable in a rejection under §103. *In re Newell*, 13 USPQ2d 1248, 1250 (Fed. Cir. 1989). The rejection of claim 2 is

improperly relying on inherency and is therefore improper and must be withdrawn.

The Office Action acknowledged that Li fails to “teach injecting a message playback signal into the speakerphone”. (see Final Office Action dated April 13, 2006, page 2) The Office Action relies on Sacca to allegedly make up for the deficiencies in Chamberlin to arrive at the claimed invention. The Applicants respectfully disagree.

The Examiner alleged that it would have been obvious to modify “Sacca so that a playback message would have been injected in to the speakerphone of Li at a summer after the AGC module (analogous to the side-tone canceller of Sacca), so that a far end party would have been able to converse with a near end party and to hear a playback message at the same time (see Office Action, page 3). However, a far end party would have been able to converse with a near end party and hear a playback message at the same time by combining a microphone signal and a playback message signal at numerous locations within a speakerphone circuit. The Examiner has failed to provide motivation why one skilled in the art would combine a microphone signal and a playback message signal conveniently at Applicants’ claimed place, i.e., before performing hybrid echo cancellation and after performing automatic gain control, as recited by claims 1-19.

Moreover, the Examiner’s motivation for modifying Li with Sacca “to enable a near-end user to connect one or more sources to a speakerphone as suggested by Sacca” (See Office Action, page 3) is nonsensical. The Examiner’s motivation to modify Li provides the SAME functionality that Sacca has, i.e., why modify Li to enable a near-end user to connect one or more sources to a speakerphone when Sacca already has that capability. Modifying Li “to enable a near-end user to connect one or more sources to a speakerphone” does not assist Li in “minimizing the effects of echoes and gains introduced by [the] speakerphone components.” (see Li, col. 1, lines 7-11).

Moreover, the Examiner alleges that the motivation for modifying Li with Sacca “was to enable a near-end user to connect one or more sources to a

speakerphone as suggested by Sacca (See Office Action, page 3). However, the Examiner is proving a result of the modification of Li. The Examiner has still failed to provide a reason why one would modify Li's system for minimizing the effects of echoes and gains introduced by speakerphone components to input any signal besides a speakerphone signal, much less a playback message signal and conveniently at the same location as recited by Applicants' claimed features. "It is impermissible to use the claimed invention as an instruction manual or 'template' to piece together the teachings of the prior art so that the claimed invention is rendered obvious." *In re Fritch*, 23 USPQ2d 1780, 1784 (Fed. Cir. 1992).

Thus, the Examiner has failed to provide a single reference that discloses or suggests a system and method to combining a microphone signal with a playback message signal before performing hybrid echo cancellation and after performing automatic gain control, as recited by claims 1-19.

It is respectfully submitted that not only does this rejection fail on its face, and thus is improper, but also in light of the above comments its clear that Li in view of Sacca does not render obvious any of claims 1-19. Thus, the rejection of claims 1-19 under 35 U.S.C. § 103(a) is improper and should be reversed.

CONCLUSION

For all the reasons set forth above, the rejections of claims 1-19 are improper and should be reversed. The Applicants therefore respectfully request that this Appeal be granted and that the rejections of the claims be reversed.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'W. H. Bollman', written over a horizontal line.

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APPENDIX

CLAIMS INVOLVED IN THE APPEAL

1. A voice messaging system with speakerphone capability, comprising:

- a microphone signal;
- a speakerphone loudspeaker;
- a hybrid echo canceller;
- an automatic gain control module;
- a message playback signal relating to a pre-recorded voice message; and

wherein said message playback signal is combined with said microphone signal before to said hybrid echo canceller and after said automatic gain control module for transmission over a telephone line such that said far end user can hear said microphone signal and said message playback signal, while said far end user can simultaneously speak through said speakerphone loudspeaker.

2. The voice messaging system with speakerphone capability according to claim 1, further comprising:

- a fixed message gain module to process said message playback signal.

3. The voice messaging system with speakerphone capability according to claim 2, wherein said message gain module comprises:

- an automatic gain control portion; and
- a fixed gain portion.

4. The voice messaging system with speakerphone capability according to claim 1, wherein said gain module comprises:

- a automatic gain control portion; and
- a fixed gain control portion.

5. The voice messaging system with speakerphone capability according to claim 1, further comprising:

- a switched loss echo suppression module in said transmit path after said gain module.

6. The voice messaging system with speakerphone capability according to claim 5, wherein:

- said message playback signal is combined with said microphone signal at a point in said transmit path after said switched loss echo suppression module.

7. The voice messaging system with speakerphone capability according to claim 6, further comprising:

- a digital to analog converter in said transmit path at a point after said switched loss echo suppression module.

8. The voice messaging system with speakerphone capability according to claim 1, further comprising:

- a transmit voice activity detector in communication with said transmit path, said transmit voice activity detector indicating a transmit condition of said speakerphone.

9. The voice messaging system with speakerphone capability according to claim 1, wherein:

- said voice messaging system is a telephone answering device.

10. A method of transmitting a microphone signal and a played back user pre-recorded voice signal to a far end party over a telephone line using a speakerphone, while simultaneously outputting a voice signal received from said far end user over a loudspeaker of said speakerphone, comprising:

establishing a telephone call;

initiating a transmit function of a speakerphone generating a microphone signal;

playing back a voice message pre-recorded on said speakerphone generating a playback message signal;

combining said microphone signal with said playback message signal before performing hybrid echo cancellation and after performing automatic gain control; and

transmitting said combined microphone signal and playback signal to a far end party over said telephone line while said far end party simultaneously speaks through said loudspeaker of said speakerphone.

11. The method of transmitting a microphone signal and a played back pre-recorded voice signal to a far end party over a telephone line using a speakerphone while simultaneously outputting a voice signal received from said far end user over a loudspeaker of said speakerphone according to claim 10, further comprising:

adjusting a gain of said microphone signal.

12. The method of transmitting a microphone signal and a played back pre-recorded voice signal to a far end party over a telephone line using a speakerphone while simultaneously outputting a voice signal received from said far end user over a loudspeaker of said speakerphone according to claim 11, further comprising:

adjusting a gain of said playback message signal.

13. The method of transmitting a microphone signal and a played back pre-recorded voice signal to a far end party over a telephone line using a speakerphone while simultaneously outputting a voice signal received from said far end user over a loudspeaker of said speakerphone according to claim 11, wherein:

said adjusting similarly adjusts a gain of both said microphone signal and said playback message signal.

14. The method of transmitting a microphone signal and a played back pre-recorded voice signal to a far end party over a telephone line using a speakerphone while simultaneously outputting a voice signal received from said far end user over a loudspeaker of said speakerphone according to claim 11, wherein:

said combining occurs at a point in a transmit path after a gain of said microphone signal is adjusted.

15. Apparatus for transmitting a microphone signal and a played back user pre-recorded voice signal to a far end party over a telephone line using a speakerphone while simultaneously outputting a voice signal received from said far end user over a loudspeaker of said speakerphone, comprising:

means for establishing a telephone call;

means for initiating a transmit function of a speakerphone generating a microphone signal;

means for playing back a voice message pre-recorded on said speakerphone generating a playback message signal;

means for combining said microphone signal with said playback message signal before performing hybrid echo cancellation and after performing automatic gain control; and

means for transmitting said combined microphone signal and playback signal to a far end party over said telephone line while said far end party simultaneously speaks through said loudspeaker of said speakerphone.

16. The apparatus for transmitting a microphone signal and a played back pre-recorded voice signal to a far end party over a telephone line using a speakerphone while simultaneously outputting a voice signal received from said far end user over a loudspeaker of said speakerphone according to claim 15, further comprising:

means for adjusting a gain of said microphone signal.

17. The apparatus for transmitting a microphone signal and a played back pre-recorded voice signal to a far end party over a telephone line using a speakerphone while simultaneously outputting a voice signal received from said far end user over a loudspeaker of said speakerphone according to claim 15, further comprising:

means for adjusting a gain of said playback message signal.

18. The apparatus for transmitting a microphone signal and a played back pre-recorded voice signal to a far end party over a telephone line using a speakerphone while simultaneously outputting a voice signal received from said far end user over a loudspeaker of said speakerphone according to claim 15, wherein:

said means for adjusting similarly adjusts a gain of both said microphone signal and said playback message signal.

19. The apparatus for transmitting a microphone signal and a played back pre-recorded voice signal to a far end party over a telephone line using a speakerphone while simultaneously outputting a voice signal received from said far end user over a loudspeaker of said speakerphone according to claim 16, wherein:

said means for combining combines said microphone signal with said playback message signal at a point in a transmit path after said means for adjusting said microphone signal.